

REMARKS

Reconsideration of the application is requested.

Claims 14-31 remain in the application. Claims 14-31 are subject to examination.

Under the heading "Claim Rejections – 35 USC § 103" on page 4 of the above-identified Office Action, claims 14-20, 30, and 31 have been rejected as being obvious over U.S. Patent No. 5,987,174 to Nakamura et al. in view of Japanese Patent No. JP 2002026304 A to Hirakoso under 35 U.S.C. § 103. Applicants respectfully traverse.

The Examiner has not provided a legitimate reason as to why one of ordinary skill in the art would have modified the teaching of Nakamura et al. by incorporating the teaching of Hirakoso. The Examiner has stated that one would have added the teaching of Hirakoso in order to perform color and monochrome coding separately within an image sensor so as to acquire uniform image quality in all the fields of the pictures concerned.

The Examiner has made a clear error in evaluating the teaching of Hirakoso. Paragraph 2 of Hirakoso refers to a prior art image sensor in which the image quality is uniform. However, Hirakoso's teaching actually deviates from the prior art teaching of providing an image sensor in which the image quality is uniform. Paragraph 6 of Hirakoso specifically teaches that the image quality of

Hirakoso's image sensor is greater in the central portion than in the peripheral portions. Clearly, Hirakoso teaches an image sensor in which the image quality is not uniform. The Examiner's statement that one would have added the teaching of Hirakoso in order to perform color and monochrome coding separately within an image sensor so as to acquire uniform image quality in all the fields of the pictures concerned is not true. The Examiner has failed to provide a legitimate reason for combining the prior art. Thus, the Examiner has also failed to properly support the rejection, and the rejection should be withdrawn.

Furthermore, while the teaching in Nakamura et al. is concerned with edge detection for determining information about the lane in which a vehicle is driving, the teaching in Hirakoso is not in any way directed to edge detection or vehicle lanes. Since Hirakoso does not address any problem that is of concern in Nakamura et al., one of ordinary skill in the art would not have been motivated to combine the teachings in a way that would have resulted in the invention as defined by claim 14 or as defined by claim 30.

Applicants also believe the Examiner has made additional clear errors in evaluating the teaching of Nakamura et al. and in comparing the teaching of Nakamura et al. to claim 20. The Examiner seems to have confused the prior art teaching of electronically processing the signal obtained from an image sensor with the requirements of claim 20 in which limitations are placed on the sensor itself.

Claim 14, from which claim 20 depends, specifies that the sensor has color encoding only in partial areas thereof. Claim 20 specifies that the color encoding - of the partial areas of the sensor - is defined in color-coded stripes and/or areas embodied in a single color.

With regard to claim 20, the Examiner has referred to column 22, lines 48-50 of Nakamura et al. However that portion merely teaches that the signal is converted into a NTSC signal. The NTSC specifies a standard for signals. It does not teach anything about constructing an image sensor with the limitations in claim 20. The Examiner has also referred to column 24, lines 21-22 and column 34, lines 1-3 of Nakamura et al. However, those portions merely teach encoders that transform a signal into a NTSC signal. The Examiner has also referred to column 34, lines 54-65 of Nakamura et al. However that portion merely teaches an image process to convert a signal into a NTSC signal. Figs. 22A and 22B are used to describe the color data minimization process (See column 29, line 4 through column 30, line 13). None of the referenced portions of Nakamura et al. teach anything about constructing an image sensor with the limitations in claim 20.

With regard to claims 15-18, applicants point out that Hirakoso specifically teaches that the central area has color encoding – not the edge areas. Applicants remind the Examiner that one must evaluate the teachings in the prior art as a whole for what they would have fairly suggested to the person of

ordinary skill in the art. Hirakoso teaches that the central area has color encoding. Hirakoso also teaches that their image structure is based on a man's retina structure (See, for example, paragraph 9). There is absolutely no teaching in Nakamura et al. that would have suggested deviating from the teaching in Hirakoso by providing color areas at one or more edges of the sensor. Furthermore, providing color areas at one or more edges of the sensor would have been inconsistent with the teaching in Hirakoso and would have destroyed the teaching in Hirakoso. Thus, the invention as defined by claims 15-18 would not have been suggested.

Applicants appreciate the effort of the Examiner in providing a machine translation of Japanese Patent No. JP 2002026304 A to Hirakoso on December 6, 2011. However, the quality of that machine translation is very poor. Applicants believe the machine translation does not satisfy the requirements placed on the Examiner to provide a translation of all foreign language documents that are cited to support a rejection. If the Examiner makes a new rejection that includes the teaching of Hirakoso, Applicants request a higher quality translation of Hirakoso so that Applicants can better evaluate the teaching in that document.

Under the heading "Claim Rejections – 35 USC § 103" on page 7 of the above-identified Office Action, claims 21, 22, and 25 have been rejected as being obvious over U.S. Patent No. 5,987,174 to Nakamura et al. in view of Japanese Patent No. JP 2002026304 A to Hirakoso and further in view of U.S.

Publication No. 2001/0052938 A1 to Itoh under 35 U.S.C. § 103. Applicants respectfully traverse.

Applicants believe the invention as defined by claims 21, 22, and 25 would not have been suggested for the reasons given above with regard to claim 14 and also with regard to claim 20 and the teachings in Nakamura et al. and Hirakoso. The teaching in Itoh does not make up for the deficiencies in the teachings of Nakamura et al. and Hirakoso.

Under the heading “Claim Rejections – 35 USC § 103” on page 9 of the above-identified Office Action, claims 23, 24, and 26 have been rejected as being obvious over U.S. Publication No. 2004/0091133 to Nakamura et al. in view of Japanese Patent No. JP 2002026304 A to Hirakoso and further in view of U.S. Publication No. 2002/0039142 A1 to Zhang under 35 U.S.C. § 103. Applicants respectfully traverse.

Applicants believe the invention as defined by claims 23, 24, and 26 would not have been suggested for the reasons given above with regard to claim 14 and the teachings in Nakamura et al. and Hirakoso. The teaching in Zhang does not make up for the deficiencies in the teachings of Nakamura et al. and Hirakoso.

Under the heading “Claim Rejections – 35 USC § 103” on page 11 of the above-identified Office Action, claims 27, 28, and 29 have been rejected as

being obvious over U.S. Publication No. 2004/0091133 to Nakamura et al. in view of Japanese Patent No. JP 2002026304 A to Hirakoso and further in view of U.S. Publication No. 2003/0048493 A1 to Pontifex et al. under 35 U.S.C. § 103. Applicants respectfully traverse.

Applicants believe the invention as defined by claims 27, 28, and 29 would not have been suggested for the reasons given above with regard to claim 14 and the teachings in Nakamura et al. and Hirakoso. The teaching in Pontifex et al. does not make up for the deficiencies in the teachings of Nakamura et al. and Hirakoso.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claims 14 or 30. Claims 14 and 30 are, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claim 14 or 30.

In view of the foregoing, reconsideration and allowance of claims 14-31 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

Appl. No. 10/593,840
Reply to Office Action of September 14, 2011
Amdt. Dated December 14, 2011

Please charge any fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner Greenberg Sterner LLP, No. 12-1099.

Respectfully submitted,

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